

# → CAFS FOR 2020 SW

## ESA's NEO Coordination Centre

### Close approach fact sheet for asteroid 2020 SW

A tiny asteroid will have a close approach with the Earth on 24 September.

Fly-by date	2020-09-24
Closest approach time	11:11 UTC ( $\pm 1$ min)
Fly-by distance from Earth surface	21 710 km, 0.056 Lunar Distances ( $\pm 11$ km)
Fly-by speed	7.8 km/s
Size range	4-10 m
Discovery date	2020-09-18
Discovery site	Mt. Lemmon Survey

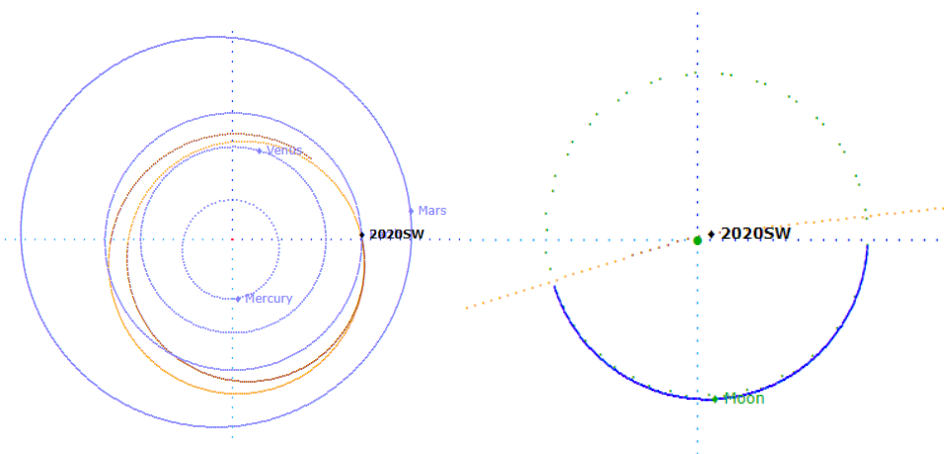
All error bars quoted in this table correspond to one standard deviation.

#### Orbit information

As the approach distance of the nominal trajectory to the Earth is relatively small, changes in its orbital elements due to the Earth gravity are noticeable.

Date before and after fly-by	Orbital period (years / days)	Aphelion distance au	Perihelion distance au	Eccentricity	Inclination deg
2020-08-24	1.02 / 373	1.208	0.822	0.190	4.213
2020-10-24	0.91 / 334	1.140	0.743	0.211	2.325

All orbital elements in this table are referred to the ecliptic at the epoch of J2000.0.



## Physical and mitigation information

Days to closest approach	Cumulative impact probability	Composition	Rotation period (hours)
2	Not applicable	Not known	Not known

## Observational information

Peak brightness	Visual observability	Geometric observability
~12.5	Visually observable with large amateur-level telescopes.	Located at slightly Northern declinations before close approach. Unobservable due to low elongation after close approach.

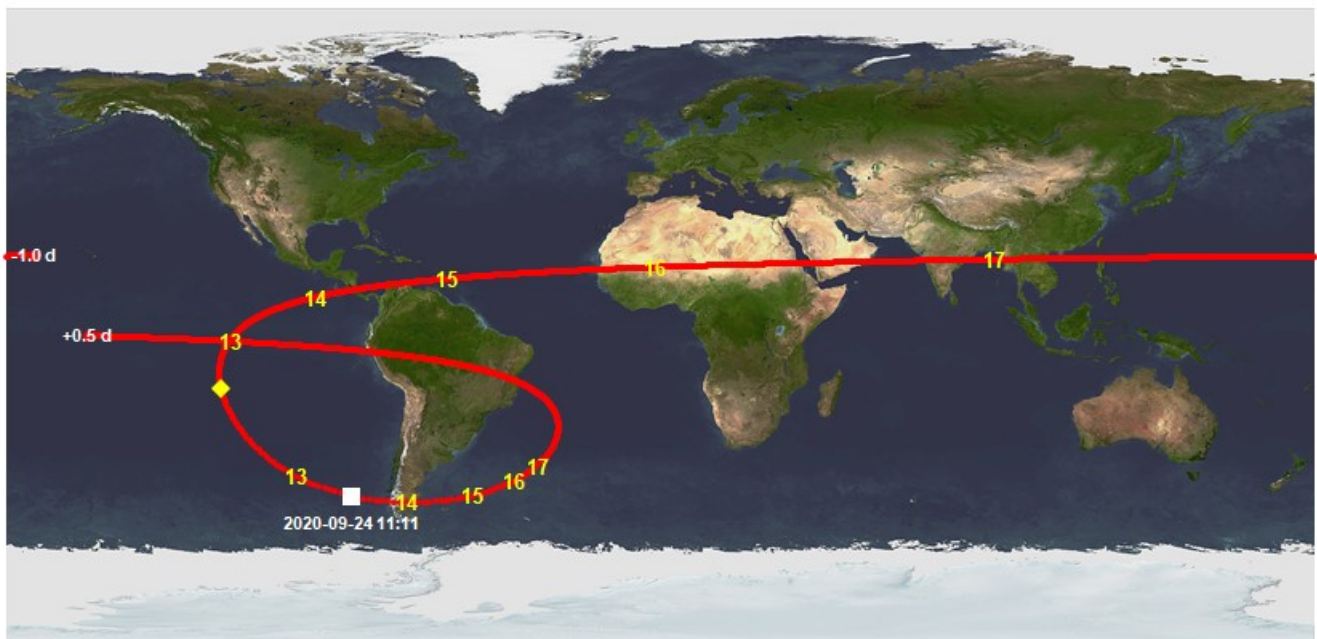
## Other information

Encounter peculiarities	Previous encounter	Next encounter
None	1982-03-31	2041-09-23

Only encounters within 0.05 au are considered.

## Asteroid ground track

The asteroid ground track is provided below, starting one day before the closest approach, and extending for 1.5 days. The curve represents the movement of the sub-asteroid point over the Earth during this time interval. The asteroid is located roughly over the equator during the incoming phase, guaranteeing almost worldwide observability while it gets brighter and closer to Earth. The formal time of maximum brightness (yellow diamond) is located over the Southern Pacific. After that, the object reaches its closest approach (white square) just offshore Patagonia, and then recedes towards the Sun, becoming unobservable due to low elongation and high phase angle.



## Links

NEO information:

<http://neo.ssa.esa.int/search-for-asteroids?tab=summary&des=2020SW>

Orbit visualiser:

<https://tinyurl.com/yyg7fzvq>

Close approaches page:

<http://neo.ssa.esa.int/close-approaches>

[neo.ssa.esa.int](http://neo.ssa.esa.int)

For further information please send an email to [neocc@ssa.esa.int](mailto:neocc@ssa.esa.int)

